

Herpestes auropunctatus (Small Indian Mongoose)

Family: Herpestidae (Mongooses)

Order: Carnivora (Carnivores)

Class: Mammalia (Mammals)



Fig. 1. Small Indian mongoose, *Herpestes auropunctatus*.

[http://kiwifoto.com/galleries/mammals/small_indian_mongoose/, downloaded 21 September 2012]

TRAITS. *Herpestes auropunctatus* (formerly known as *H. javanicus*) is native to south Asia and has been introduced to Trinidad and Tobago (and other Caribbean islands) for control of rats and snakes. This animal is small and slender with short legs (Fig. 1). Its head is elongated with a pointed muzzle and small ears (Csurhes & Fisher 2010). The mongoose's tail is muscular at the bottom and tapers gradually throughout its length, it also possess five toes that contains retractable claws. Its body length is between 50-67 cm for females and 54-67 cm for males. Its weight ranges from 305-662 grams. Their bodies are covered with short hair that is coloured pale to dark brown with golden flecks (Csurhes & Fisher 2010). Both males and females have an extensible anal pad with glands that are ducted lateral to the anus.

ECOLOGY. Its habitat range is the largest in the family Herpestidae. It can thrive in a large range of habitats inclusive of agricultural land, coastal areas, natural forests, planted forests, grassland, wetland areas. However, climatically it is best able to survive in tropical zones (Csurhes & Fisher 2010). Carnivorous, with a varied and opportunistic diet, this diet is dependent on the habitat it is in and the food availability. This diet includes small mammals,

birds, reptiles, invertebrates and plant matter. Some of the populations are insectivorous while others have a diet consisting of fruit (Hays & Conant 2007). *H. auropunctatus* can adapt to a range of ambient temperatures. Their normal body temperatures are 39.5°C and they are able to maintain their inner temperature in environments ranging from 10 to 41°C (Nellis & McManus 1974). When the temperature is cold their metabolic response is an increase in oxygen consumption up to threefold. On the other hand, in hot environments their breathing rate increases and water loss exceeds metabolism (Ebisu & Whittow 1976). At rest their heart beats at 252 beats/min. The tail is the primary location for fat deposition and has seven times more fat than the body (Nellis & Everhard 1983).

REPRODUCTION. They can breed from two to three times a year, occurring most frequently when food is abundant. Ovulation in females is induced by copulation. The timing of reproduction is set based on the length of day. Pregnancies occur most frequently prior to the summer solstice north and south of the equator. The cycle of the male reproductive tract increases after the winter solstice (Gorman 1975). At birth the back of the young is covered with neutral gray hair and only a small amount of hair on the abdomen (Fig. 2). It weighs about 21 g and the vibrissae are prominent. They have well developed claws, closed ears and with disturbance mewling vocalizations can be heard. There are also visible eyelashes (Nellis & Everhard 1983). Two weeks after birth their incisors are fully in place and their canines have come out. By the 22nd week all permanent teeth are there. Eye-opening occurs between 17 and 20 days after birth. By 4 months two-thirds of the body mass is attained and other body characteristics show the same development. Spermatogenesis begins in the testes when the body mass is at 400 g. To indicate age in the young animals, the closure of skull sutures provides an estimate. The average size of litter is two to three young. Sexual maturity occurs in females at 10 months of age and males at four months (Csurhes & Fisher 2010).

SEXUAL BEHAVIOUR. At the beginning of oestrus in captivity females show restlessness and increased marking. One oestrous female may be shown interest by several males. The males exhibit screaming, barking and chasing among themselves. The female usually accepts the male that is the most socially dominant in the courting group. Males and females are both polygamous i.e. they have more than one mate. Males and females engage in sexual intercourse several times a day during oestrus. During the later stages of pregnancy females tend to show increased resentment toward adult males. Birth usually takes place at night and is usually shortly after the sun sets.

ACTIVITY. They move through dense cover in a graceful serpentine way hardly rustling dry grass. Styles include walk, trot and gallop. They can climb but they are not usually found far above the ground. When they are in an open area they stay close to the ground in a slinking manner. They are not regularly active on rainy days or when the grass is wet with dew. They are unwilling to enter water that is more than a few centimetres deep. If they are forced to swim they show sufficient skill but poor endurance (Nellis & Everard 1983). They have a number of distinctive postures. When moving through grass that exceeds their height, the animal may stop and sit securely in a vertical position on the upper leg (Fig. 3). When more height is needed they stand erect on hind feet supported by its muscular tail. The typical sleeping posture is obtained by curling into a tight circle with the weight being supported by the hindquarters and the dorsal aspects of the shoulders, and the snout pointing vertically.

COMMUNICATION. *H. auropunctatus* is a diurnal animal. They mark productively by wiping objects with their anal pad. They also use marking as a displacement activity by the overpowered in agonistic encounters (Nellis & Everard 1983). There are variations in vocalizations that can be divided into different categories including weep, squawk, honk, ruck-a-ruck, pant, spit, bark, chuck, scream and growl (Mulligan & Nellis 1975).

JUVENILE BEHAVIOUR. The young make their first outings from the den at 4 weeks of age and may also follow the mother on trips to hunt when they are 6 weeks old. Young mongooses display a strong following response and their usual form of play is an undirected dashing about (Nellis & Everard 1983). They tend to exhibit extreme food envy from an early age throughout adulthood. An individual that is fed to capacity will forcefully try to take food away from a feeding conspecific. This instinct is utilized by mothers as a way of teaching young to feed.

ANTIPREDATOR BEHAVIOUR. This small animal is swift and aggressive and can dominate predators five times larger than it. During a struggle it will arch its back and tail along with pilo-erection.

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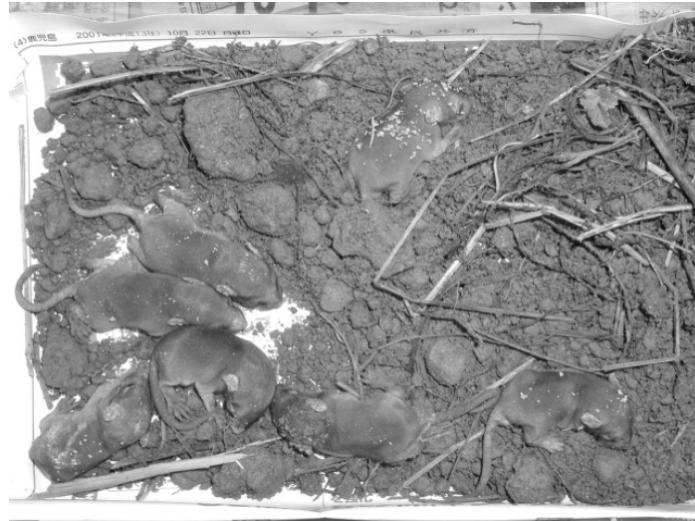


Fig. 2. Pups of *H. auropunctatus*.

[http://vege1.kan.ynu.ac.jp/isp/pdf/Abe_et_al_mongoose.pdf, downloaded 21 October 2012]



Fig. 3. Small Indian mongoose in survey posture.

[http://www.fs.usda.gov/detail/elyunque/learning/nature-science/?cid=fsbdev3_042886,
downloaded 21 October 2012]